

REMARKS

Claims 1-24 were pending. All stand rejected. Claims 1, 4, 13, 15 are amended, claim 14 is cancelled and claims 25-28 are added. Therefore, claims 1-13 and 15-28 are currently pending. The applicants request further examination and consideration in view of the amendments above and remarks set forth below.

Amendments to the Specification:

The applicants amended the specification at page 9, lines 15-28, to provide the serial number of the identified patent application. The applicants have amended the specification at page 12, lines 12-18, to correct minor typographical errors. The errors should be apparent from the context of the paragraph in which they occur and from Figure 9 which is referenced in the paragraph. No new matter has been added.

Rejections under 35 U.S.C. § 102(b):

Claims 1, 4-10, 13-14, 17 and 20-24 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,209,033 to Datta et al. (hereinafter “Datta”).

The applicants respectfully traverse the rejection. Datta was published on March 27, 2001, which was less than one year prior to the January 31, 2002 filing date of the present application. Therefore, Datta does not qualify as prior art under 35 U.S.C. § 102(b).

In addition, in order to anticipate a claim, the reference must teach each and every element of the claim. Manual of Patent Examining Procedure (MPEP), Section 2131 (Oct. 2005). While identity of terminology is not required, the elements must be as arranged in the claim. *Id.*, citing *In re Bond*, 910 F.2d 831, 15 USPQ.2d 1566 (Fed. Cir. 1990). In rejecting claim 1, the Office Action mailed on October 5, 2005, relies upon: col. 2, lines 25-29, of Datta as disclosing certain elements of the claim; col. 3, lines 1-10, and 24-35, of Datta as disclosing other elements of the claim; and col. 6, lines 33-61, of Datta as disclosing still other elements of the claim. However, at col. 2, lines 25-29, Datta is clearly discussing “prior art” which is shown in Figure 1 of Datta. Datta describes this prior art as having drawbacks. See col. 2, lines 41-52 of Datta. In contrast, at col. 3, lines 1-10 and 24-35, Datta discusses the “invention.” Then, at col. 6, lines 33-45 Datta is again discussing prior art and its perceived disadvantages. In particular, see col. 6, lines 36-37, where Datta refers to the “main disadvantages” of certain prior products. And, at col. 6, lines 46-61, Datta reverts to

discussing “an embodiment of the invention” which is said to “overcome such limitations.” Therefore, the Office Action mailed on October 5, 2005, does not set forth a *prima facie* case for anticipation at least because it does not set forth the elements of claim 1 *as they are arranged in the claim*. According to the MPEP, this is a requirement for anticipation. Instead, the Office Action relies both upon passages of Datta that discuss the “prior art” with respect to Datta and upon other passages of Datta that discuss “the invention” of Datta.

Even assuming Datta qualifies as prior art, Datta does not disclose all of the limitations of the rejected claims. Prior to the above-amendment, claim 1 recited “a method for generating an interconnect design problem, the problem including requirements for a plurality of flows among a set of network nodes...”. Claim 1 also recited particular steps for adding a flow to the requirements. As explained in the applicants’ specification, communication requirements of an interconnect fabric may be characterized in terms of a set of flow requirements and the design of an interconnect fabric usually involves selecting the appropriate arrangement of physical communication links and interconnect devices and related components that will meet the flow requirements. Applicants’ specification at page 1, lines 20-26. Thus, the applicant’s invention is directed toward generating an interconnect design problem, which is suitable for application of a design technique by which physical communication links and communication devices are arranged to meet the flow requirements. Applicants’ specification at page 9, lines 15-18. In other words, the invention generates interconnect requirements that represent a hypothetical situation that is in need of a design solution. Such design problems generated by the applicants’ invention may be used to evaluate design techniques which are under development or otherwise in need of evaluation. Applicants’ specification at page 9, lines 18-28. Accordingly, claim 1 is directed toward a particular method of generating an interconnect design problem, the problem including requirements for a plurality of flows among a set of network nodes. This is clear from the recitations of claim 1.

Datta et al. is directed toward an apparatus for network capacity evaluation and planning. Title of Datta. The network capacity evaluation and planning (CEP) is performed based upon the traffic across the links of the network. Datta at col. 2, lines 54-56. Once a link’s traffic volume has been measured, it is compared with the link’s traffic capability, and the resulting parameters may be compared with the traffic and

capability of other links of the network to create measures of network capacity and balance. Datta at col. 2, lines 56-60. Then, simulated changes to the network configuration may be made by substituting simulated traffic volume amounts and capabilities for selected link traffic measurements and capabilities, and the resulting determinations of network capacity and balance may then be compared to determine whether the simulated changes represent a preferred network configuration. Datta at col. 2, lines 61-67.

Therefore, the difference is that Datta does not teach or suggest a method for generating an interconnect design problem, the problem including requirements for a plurality of flows among a set of network nodes, nor particular steps for adding a flow to the requirements. However, these features are recited in applicants' claim 1. Therefore, claim 1 is not anticipated by Datta.

For at least the reasons given above, claim 1 is allowable over Datta. Claims 4-10 are allowable at least because they depend from an allowable base claim 1.

While not required to overcome the rejection in view of Datta, the applicants have amended claim 1. In particular, the applicants have amended claim 1 to recite generating an interconnect fabric design problem specification, the problem specification including requirements for a plurality of flows among a set of network nodes. (Additions are underlined). This amendment is supported by the applicants' specification at least at page 4, lines 7-9, where it explains that the design problem may specify requirements for communication flows among the specified nodes. Because the design problem specifies flow requirements, it is a specification of those flow requirements. In addition, claim 1 is amended to recite that the problem specification is suitable for application of a design technique by which physical communication links and communication devices are arranged to meet the flow requirements. This amendment is supported by the applicants' specification at least at page 1, lines 23-26, and page 9, lines 15-28. Further, claim 1 is amended to recite repeating said selecting, said determining and said generating thereby adding requirements for flows to the problem specification such that at least one of the source or terminal nodes is assigned more flows than there are ports available at the node. This amendment is supported by the applicants' specification at least at page 4, line 6 to page 8, line 30, where the process of adding flows to the requirements is explained in detail. It should be noted that Figure 5 shows that source node 12 is assigned five flows (flows 62, 64, 76, 66 and 68), but has only two available ports (ports 38 and

40). Also, terminal node 24 is assigned six flows (flows 60, 66, 70, 72, 74 and 76), but has only three available ports (ports 32, 34 and 36). Thus, nodes and 12 and 24 are each assigned more flows than there are ports available at the node. Claim 4 is amended to be consistent with the amendments to claim 1.

The applicants submit that Datta does not teach or suggest all of the features of introduced by these amendments to claim 1. This is another reason why claim 1 is allowable over Datta and is also another reason why claims 4-10 are allowable over Datta.

Prior to the above amendments, claim 13 recited a particular system for generating an interconnect fabric design problem including a set of flow requirements among the set of nodes. As explained above, Datta does not teach or suggest generating an interconnect fabric design problem. For at least this reason, claim 13 is allowable over Datta. Claims 14, 17 and 20-24 are allowable at least because they depend from an allowable base claim 13.

Further, the applicants have amended claim 13 similarly to the amendments made to claim 1, explained above. Claim 14 is cancelled and claim 15 is amended for consistency with amended claim 13. Datta does not teach or suggest all of the features of introduced by these amendments to claim 13. This is another reason why claim 13 is allowable over Datta and is also another reason why claims 14, 17 and 20-24 are allowable over Datta.

Rejections under 35 U.S.C. § 103:

Claims 2-3, 15-16 and 18-19 were rejected under 35 U.S.C. § 103 as being unpatentable over Datta in view of Dziong et al., “A Framework for Bandwidth Management in ATM Networks – Aggregate Equivalent Bandwidth Estimation Approach” (hereinafter “Dziong”).

As explained above, Datta does not teach or suggest all of the limitations of claims 1 and 13, (either before or after entry of the above amendments). The applicants submit that Dziong does not teach or suggest all of the features of claim 1 and 13 that are missing from Datta. Therefore, claims 1 and 13 are allowable over Datta and Dziong, taken singly or in combination. Claims 2-3, 15-16 and 18-19 are allowable at least because each depends from an allowable base claim 1 or 13.

Claims 11 and 12 were rejected under 35 U.S.C. § 103 as being unpatentable over Datta in view of Dziong and further in view of U.S. Patent No. 5,426,674 to

Nemirovsky et al. (hereinafter "Nemirovsky"). The applicants submit that Nemirovsky also does not teach or suggest all of the features of claim 1 and 13 that are missing from Datta and Dziong. Therefore, claims 1 and 13 are allowable over Datta, Dziong and Nemirovsky, taken singly or in combination. Claims 11 and 12 are allowable at least because each depends from an allowable base claim 1 or 13.

New Claims:

New claims 25 and 27 recite that the capacity for a generated flow is randomly selected to be a value less than or equal to the lower of the maximum capacity of the source node and the terminal node. This feature is supported by the applicants' specification at least at page 6, lines 11-13 and 19-23.

New claims 26 and 28 recite that the capacity available at a node is reduced by the capacity of each flow assigned to the node. These means that as flows are assigned to a node, the available capacity for subsequent flows is reduced by a corresponding amount. This feature is supported by the applicants' specification at least at page 7, line 25, to page 8, line 13, where several examples are given showing how the available capacity is reduced by the capacity of assigned flows.

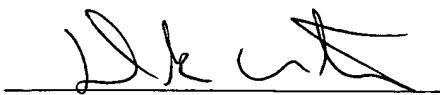
New claims 25-28 are allowable at least because each depends from an allowable base claim 1 or 13.

Conclusion:

In view of the above, the applicants submit that all of the pending claims are now allowable. Allowance at an early date would be greatly appreciated. Should any outstanding issues remain, the examiner is encouraged to contact the undersigned at (408) 293-9000 so that any such issues can be expeditiously resolved.

Respectfully Submitted,

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